

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-11. (Cancelled)

12. (Currently amended) A method of depositing ink comprising:
delivering ink to an ink chamber; and
applying a jetting voltage across a first electrode and a second electrode on a face of a
stiffened piezoelectric element to subject ink within the chamber to a jetting pressure, thereby
depositing ink from an exit orifice of the ink chamber, wherein the stiffened piezoelectric
element has a curved surface over the ink chamber, the curved surface having a substantially
constant radius of curvature and being concave relative to the ink chamber.

13-15. (Cancelled)

16. (Currently amended) The method of claim 1312, wherein the piezoelectric element
includes lead zirconium titanate.

17. (Currently amended) The method of claim 1312, wherein the jetting voltage is less
than 60 volts.

18. (Currently amended) The method of claim 1412, wherein the curved surface has a
substantially constant radius of curvature of is less than 5 millimeters.

19. (Currently amended) An ink jet printing module comprising:
an ink chamber;
a stiffened piezoelectric element having a region exposed to the ink chamber, the
piezoelectric element being positioned over the ink chamber to subject ink within the chamber to
jetting pressure, wherein the region of the stiffened piezoelectric element exposed to the ink

chamber has a curved surface, the curved surface having a substantially constant radius of curvature and being concave relative to the ink chamber; and

electrical contacts arranged on a single surface of the piezoelectric element for activation of the piezoelectric element.

20-22. (Cancelled)

23. (Original) The ink jet printing module of claim 19, wherein the piezoelectric element includes lead zirconium titanate.

24. (Original) The ink jet printing module of claim 19, wherein the piezoelectric element has a thickness of 5 to 300 microns.

25. (Original) The ink jet printing module of claim 19, wherein the piezoelectric element has a thickness of 10 to 250 microns.

26. (Original) The ink jet printing module of claim 19, wherein the piezoelectric element has a thickness of less than 100 microns.

27. (Original) The ink jet printing module of claim 19, wherein the chamber has a width of less than 1200 microns.

28. (Original) The ink jet printing module of claim 19, wherein the chamber has a width of 50 to 1000 microns.

29. (Original) The ink jet printing module of claim 19, wherein the chamber has a width of 100 to 800 microns.

30. (Currently amended) The ink jet printing module of claim 2019, wherein the curved surface has a radius of curvature of 500 to 3000 microns.

31. (Currently amended) The ink jet printing module of claim 2019, wherein the curved surface has a radius of curvature of 1000 to 2800 microns.

32. (Currently amended) The ink jet printing module of claim 2019, wherein the curved surface has a radius of curvature of 1500 to 2600 microns.

33. (Original) The ink jet printing module of claim 19, wherein the electrodes are configured to apply a voltage of less than 60 volts.

34. (Original) The ink jet printing module of claim 19, further comprising a series of chambers.

35. (Original) The ink jet printing module of claim 34, wherein each of the chambers is covered by a single piezoelectric element.

36. (Original) The ink jet printing module of claim 19, wherein the chamber includes a wall contacting the piezoelectric element exposed to the ink chamber at an angle of greater than ninety degrees.

37. (Currently amended) A method of depositing ink comprising:
delivering ink to an ink chamber; and
applying a jetting voltage across a first electrode and a second electrode on a face of a stiffened piezoelectric element to subject ink within the chamber to a jetting pressure, thereby depositing ink from an exit orifice of the ink chamber, wherein the stiffened piezoelectric element has a region spanning the ink chamber and being substantially completely exposed to the ink chamber, the exposed region having a curved surface over the ink chamber, the curved surface having a substantially constant radius of curvature and being concave relative to the ink chamber.

38. (Previously presented) The method of claim 37, wherein the piezoelectric element includes lead zirconium titanate.

39. (Previously presented) The method of claim 37, wherein the jetting voltage is less than 60 volts.

40. (Currently amended) The method of claim 37, wherein the ~~curved surface has a substantially constant radius of curvature of~~ is less than 5 millimeters.

41. (Currently amended) An ink jet printing module comprising:
an ink chamber;

a stiffened piezoelectric element having a region spanning the ink chamber and being substantially completely exposed to the ink chamber, the piezoelectric element being positioned over the ink chamber to subject ink within the chamber to jetting pressure, wherein the region of the stiffened piezoelectric element exposed to the ink chamber has a curved surface, the curved surface having a substantially constant radius of curvature and being that is concave relative to the ink chamber; and

electrical contacts arranged on a surface of the piezoelectric element distal to the ink chamber for activation of the piezoelectric element.

42. (Previously presented) The ink jet printing module of claim 41, wherein the piezoelectric element includes lead zirconium titanate.

43. (Previously presented) The ink jet printing module of claim 41, wherein the piezoelectric element has a thickness of 10 to 250 microns.

44. (Previously presented) The ink jet printing module of claim 41, wherein the piezoelectric element has a thickness of 5 to 300 microns.

45. (Previously presented) The ink jet printing module of claim 41, wherein the piezoelectric element has a thickness of less than 100 microns.

46. (Previously presented) The ink jet printing module of claim 41, wherein the curved surface has a radius of curvature of 500 to 3000 microns.

47. (Previously presented) The ink jet printing module of claim 41, wherein the chamber has a width of 50 to 1000 microns.